The Examiner has rejected most of the claims of the application under 35 U.S.C. § 102 as being anticipated by U.S. Patent 5,556,234 by Oldsen. However, the Examiner has misinterpreted the Oldsen specification and components, and the Applicant herein respectfully offers the following elaboration and discussion of specific components of Oldsen in comparison to that of the Applicant.

In a mine roof control system, the two basic primary control members, both that are old in the public domain, are the roof bolt and the base plate. In the industry, the terms "base plate" and "bearing plate" are often used interchangeably, and these terms refer to a steel plate that is held in tension against the mine roof by the bolt to provide primary roof support. The bearing plate is typically 6" x 6" square although other signs are sometimes found. In the Applicant's specification, the bearing plate is shown by numeral 121 while in Oldsen, the bearing plate is shown by numeral 20 (See discussion of bearing plate at column 3, line 17-26 in Oldsen). For clarity, Fig. 1 of Oldsen and Fig. 3 of the present Application are attached to this Response.

In Oldsen, the improvement over the prior art is the inclusion of a deformable washer comprising a first convex surface and constructed so that said washer plastically deforms as the mine bolt is tensioned. This deformable washer is shown by numeral 38 in the patent. In contrast, the Applicant has no such washer, and the Applicant's invention is directed to an entirely different utility. The Applicant includes a flat, laterally extensive plate (numeral 100) oriented between the base plate and the mine surface and directed to apply pressure against the mine roof at locations laterally removed from the base plate. Oldsen does not include such a member and does not recognize the utility of doing so. Accordingly, the Applicant's invention is patentably distinct from Oldsen and is fully distinguishable from the Oldsen claims.

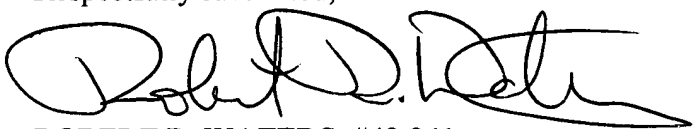
35 U.S.C. § 103 Rejection

The Examiner has also asserted a rejection due to obviousness for five claims under 35 U.S.C. § 103, citing Oldsen '234 in view of Cumming (U.S. Patent 3,113,468). The same discussion set forth above concerning the elements of Oldsen is also applicable here. Oldsen does not disclose a laterally extensive plate oriented between the base plate and roof to provide pressure at locations laterally removed from the base plate.

Cumming '468 discloses a base plate wherein the base plate is round and convex in shape. This is generally old in the art. Cumming '468 does not disclose or anticipate the use of a secondary support member laterally removed from the base plate which is held in tension to reduce the prevalence of localized crumbling of the lower rock strata, i.e.- draw rock. Rather, the Cumming '468 member in question is a traditional base plate or bearing plate with a modified shape. The Cumming apparatus would not address the problem of draw rock and does not recognize or anticipate the use of a secondary support member under the base plate directed to apply pressure at locations laterally removed from the base plate.

Having responded appropriately in full to the Office Action, the Applicant respectfully requests allowance of the application as modified, and advancement of the application to the Issue Branch.

Respectfully submitted,



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Specification Amendment
(Replacement for paragraph 0001)

[0001] This application is a continuation of U.S. Patent application Ser. No. 09/944,666 filed on August 31, 2001 and which is now U.S. Patent 6,682,268 and which in turn claims priority from U.S. provisional application No. 60/230,244, filed on Sep. 1, 2000. This application relates to an apparatus for providing secondary support for roof control in underground mines. This application relates to an apparatus for providing secondary support for roof control in underground mines. The entire disclosure contained in U.S. patent application Ser. No. 09/944,666 and U.S. provisional application No. 60/230,244, including the attachments thereto, are incorporated herein by reference.